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11/29/05

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,791	03/04/2004	Yoshihiro Nakao	034100-002	5495
21839	7590	11/29/2005	EXAMINER	
BUCHANAN INGERSOLL PC (INCLUDING BURNS, DOANE, SWECKER & MATHIS) POST OFFICE BOX 1404 ALEXANDRIA, VA 22313-1404			MARTINELL, JAMES	
			ART UNIT	PAPER NUMBER
			1634	

DATE MAILED: 11/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/791,791	NAKAO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	James Martinell	1634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-46 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) \_\_\_\_ is/are rejected.
- 7) Claim(s) \_\_\_\_ is/are objected to.
- 8) Claim(s) 1-46 are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_.
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_.

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-9 and 33, drawn to screening methods for genes, classified in class 435, subclass 6.
- II. Claims 10, 11, 14-19, and 34-37, drawn to genes, vectors, and transformed host cells, classified in class 536, subclass 23.74 and class 435, subclasses 320.1, 254.2, and 254.21.
- III. Claims 12, 13, and 38-45, drawn to DNAs, vectors, and transformed host cells, classified in class 536, subclass 23.74 and class 435, subclasses 320.1, 254.2, and 254.21.
- IV. Claims 20 and 21, drawn polypeptides, classified in class 530, subclass 350.
- V. Claims 22 and 26, drawn to methods for producing alcohol, classified in class 435, subclass 161.
- VI. Claims 23-25, drawn to yeast breeding methods and yeast, classified in class 435, subclass 255.1.
- VII. Claim 27, drawn to alcohol and beverages containing alcohol, classified in class 568, subclass 75.
- VIII. Claims 28-32 and 46, drawn to oligonucleotide arrays containing combinations of oligonucleotides, classified in class 536, subclass 24.3.

The inventions are distinct, each from the other because of the following reasons. The methods of Group I do not require the genes, vectors or transformed host cells of Groups II or III, the polypeptides of Group III, the yeast of Group VI, or the arrays of Group VIII. The methods of Group I may be practiced independently of the methods of Groups V and VI. The methods of Group I are not needed to make the genes, vectors or transformed host cells of Groups II or III, the polypeptides of Group III, the yeast of Group VI, the alcohol or beverages of Group II, or the arrays of Group VIII. The genes, vectors, and transformed host cells of Group II are independent and distinct from the genes, vectors, and transformed host cells of Group III because they are of distinct and unrelated sequences.

The genes, vectors, and transformed host cells of Group II are materially different from, and are therefore independent and distinct from the polypeptides of Group IV and the alcohol and beverages of Group VII. The genes, vectors, and transformed host cells of Group II are independent and distinct from the yeast of Group VI and the oligonucleotide arrays of Group VIII. The genes, vectors, and transformed host cells of Group II have uses other than the methods of Groups V and VI (e.g., in affinity chromatography). The genes, vectors, and transformed host cells of Group III are materially different from, and are therefore independent and distinct from the polypeptides of Group IV and the alcohol and beverages of Group VII. The genes, vectors, and transformed host cells of Group III are independent and distinct from the yeast of Group VI and the oligonucleotide arrays of Group VIII. The genes, vectors, and transformed host cells of Group III have uses other than the methods of Groups V and VI (e.g., in affinity chromatography). The polypeptides of Group II are not needed to practice the methods of Groups V or VI. The polypeptides of Group IV are materially different from, and are therefore independent and distinct from the yeast of Group VI, the alcohol and beverages of Group VII, and the oligonucleotide arrays of Group VIII. The methods of Group V may be practiced independently of the methods of Group VI. The methods of Group V are not needed to make the yeast of Group I. The alcohol of Group V may be made by methods other than those of Group V (e.g., by using some organism other than yeast). The methods of Group V do not require the oligonucleotide arrays of Group VIII. The methods of Group VI are not needed to produce the alcohol or beverages of Group VII. The yeast of Group VI are materially different from, and are therefore independent and distinct from the alcohol and beverages of Group VII and the oligonucleotide arrays of Group VIII. The alcohol and beverages of Group VII are materially different from, and are therefore independent and distinct from the oligonucleotide arrays of Group VIII.

Claims 10-19, 22-26, and 34-45 are drawn to nucleotides, nucleotide constructs, and/or methods requiring the use of nucleotides or nucleotide constructs that contain more than one individual, independent, and distinct nucleotide sequence in alternative form. Accordingly, these claims are subject to restriction under 35 U.S.C. § 121 as outlined in 1192 O.G. 68 (November 19, 1996). This notice

permits the examination of from one to ten independent and distinct nucleotide sequences in a single application based upon USPTO resources.

Applicant is required to select no more than ONE of the individual sequences for examination. The search of the no more than ONE selected sequence may include the complement of the selected sequence and, where appropriate, may include subsequences within the selected sequence (e.g., oligomeric probes and/or primers).

Claims 20 and 21 are drawn to more than one unrelated, independent, and distinct polypeptide or methods requiring the use of more than one unrelated, independent, and distinct polypeptide. Should applicants elect Group IV for examination, applicants are further required to select one polypeptide or a set of methods that requires the use of only one polypeptide for examination on the merits.

Claims 28-32 and 46 are drawn to compositions reciting different combinations of individual nucleotide sequences. Applicant is required to select one combination for examination. If the selected combination contains ten or fewer sequences, all of the sequences of the combination will be searched. If the selected combination contains more than ten sequences, the combination will be searched until one nucleotide sequence is found to be allowable. The order of searching will be chosen by the examiner to maximize the identification of an allowable sequence. If no individual nucleotide sequence is found to be allowable, the examiner will consider whether the combination of sequences taken as a whole renders the claims allowable. The identification of any allowable sequence(s) will cause all combinations containing the allowed sequence(s) to be allowed. See O.G. 68 (November 19, 1996).

To search any two groups as outlined above would create an undue burden for the USPTO because the searches of the non-patent literature are not only non-overlapping to any appreciable extent, but are also divergent in nature.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their different classification and recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Art Unit: 1634

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

**Reminder Regarding *In re Ochiai* and *In re Brouwer***

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provisions of MPEP § 821.04. Process claims that depend from or otherwise include all the limitations of the patentable product will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. Until an elected product claim is found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See "Guidance on Treatment of Product and Process Claims in light of *In re Ochiai*, *In re Brouwer* and 35 U.S.C. § 103(b)," 1184 O.G. 86 (March 26, 1996). Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution either to maintain dependency on the product claims or to otherwise include the limitations of the product claims. Failure to do so may result in a loss of the right to rejoinder.

Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner bee the patent issues. See MPEP § 804.01.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Martinell whose telephone number is (571) 272-0719. The fax phone number for Examiner Martinell's desktop workstation is (571) 273-0719. Only documents such as those intended for use in a personal or telephone interview should be faxed to the examiner's desktop workstation. Any Official Communication to the USPTO should be faxed to (571) 273-8300.

The examiner works a flexible schedule and can be reached by phone and voice mail.

Alternatively, a request for a return telephone call may be e-mailed to [james.martinell@uspto.gov](mailto:james.martinell@uspto.gov). Since

Art Unit: 1634

e-mail communications may not be secure, it is suggested that information in such requests be limited to name, phone number, and the best time to return the call.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Jones, can be reached on (571) 272-0745.

**OFFICIAL FAX NUMBER**

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Any Official Communication to the USPTO should be faxed to this number.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

  
**James Martinell, Ph.D.**  
**Primary Examiner**  
**Art Unit 1634**

11/22/05